

**TESTIMONY OF
MICHAEL D. CASSEL
ON BEHALF OF
*CHESAPEAKE UTILITIES***

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION OF)
CHESAPEAKE UTILITIES CORPORATION)
FOR APPROVAL OF A CHANGE IN ITS) P.S.C. DOCKET NO. 08-
GAS SALES SERVICE RATES ("GSR"))
TO BE EFFECTIVE NOVEMBER 1, 2008)

DIRECT TESTIMONY OF MICHAEL D. CASSEL

On Behalf of Chesapeake Utilities Corporation

Delaware Division

Submitted for filing: September 2, 2008

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS
2 ADDRESS.

3 A. My name is Michael D. Cassel and I am the Senior Regulatory Analyst
4 with Chesapeake Utilities Corporation ("Chesapeake" or the "Company").
5 My business address is 350 S. Queen Street, Dover, Delaware 19904.

6
7 Q. DESCRIBE BRIEFLY YOUR EDUCATION AND RELEVANT
8 PROFESSIONAL BACKGROUND.

9 A. I received a Bachelor of Science Degree in Accounting from Delaware
10 State University in Dover, Delaware in 1996. I was hired by Chesapeake
11 as a Senior Regulatory Analyst in March 2008. As a Senior Regulatory
12 Analyst, I have primarily been involved in the areas of gas cost recovery,
13 rate of return analysis, and budgeting for the Delaware natural gas
14 distribution company. Prior to joining Chesapeake, I was employed by
15 J.P. Morgan Chase & Company, Inc. from 2006 to 2008 as a Financial
16 Manager in their card finance group. My primary responsibility in this
17 position was the development of client specific financial models and profit
18 loss statements. I was also employed by Computer Sciences Corporation
19 as a Senior Finance Manager from 1999 to 2006. In this position, I was
20 responsible for the financial operation of the company's chemical, oil and
21 natural resources business. This included forecasting, financial close and
22 reporting responsibility, as well as representing Computer Sciences
23 Corporation's financial interests in contract/service negotiations with

1 existing and potential clients. From 1996 to 1999 I was employed by J.P.
2 Morgan, Inc. where I had various accounting/finance responsibilities for
3 the firms private banking clientele.

4

5 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE DELAWARE
6 PUBLIC SERVICE COMMISSION ("COMMISSION")?

7 A. No.

8

9 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
10 PROCEEDING?

11 A. The purpose of my testimony is to discuss the mechanics of the three
12 Gas Sales Service Rates ("GSR"), explain the forecasted demand and
13 commodity costs, address the development of the forecasted firm and
14 interruptible sales volumes and total system requirements, discuss the
15 development of the unaccounted for gas volumes, as well as to illustrate
16 the impact of the proposed GSR charges on an average residential
17 customer's bill.

18

19 Q. ARE THERE ANY SCHEDULES INCLUDED WITH YOUR DIRECT
20 TESTIMONY?

21 A. No. In my testimony, I will be referencing the Schedules attached to the
22 testimony of Jennifer A. Clausius.

1 Q. WHAT GAS SALES SERVICE RATE LEVELS ARE YOU PROPOSING IN
2 THIS PROCEEDING TO BE EFFECTIVE WITH SERVICE RENDERED
3 ON AND AFTER NOVEMBER 1, 2008?

4 A. The Company proposes the following Gas Sales Service Rates to be
5 effective for service rendered on and after November 1, 2008: \$1.466 per
6 Ccf for customers served under Rate Schedules RS-1, RS-2, GS, MVS,
7 and LVS, \$1.231 per Ccf for customers served under Rate Schedules
8 GLR and GLO, and \$1.391 per Ccf for customers served under Rate
9 Schedule HLFS.

10

11 Q. PLEASE DESCRIBE HOW YOU CALCULATED THE PROPOSED GAS
12 SALES SERVICE RATE LEVELS TO BE IMPLEMENTED IN THIS
13 PROCEEDING.

14 A. The rates were calculated based on the estimated purchased gas costs
15 and estimated sales volumes for the twelve months ending October 31,
16 2009 and are summarized on Schedule A.1. As shown on Schedule A.1,
17 total projected firm gas costs recoverable through the gas cost recovery
18 mechanism are \$63,234,857. This total is comprised of \$14,140,066 of
19 fixed costs and \$49,094,790 of variable costs. The three gas cost rates
20 shown at the top of Schedule A.1, which include a fixed rate (used to
21 calculate separate demand rates), a variable / commodity rate, and a total
22 rate or system average rate, are the key components for calculating
23 separate Gas Sales Service Rates for different services.

1 Q. CAN YOU BRIEFLY SUMMARIZE THE REASONS WHY THE THREE
2 GSR CHARGES ARE INCREASING FROM THE COMPANY'S
3 PREVIOUS FILING?

4 A. The analysis of the change in gas costs and Gas Sales Service Rates
5 from the Company's last gas cost recovery filing is summarized on
6 Schedule E. As shown on this schedule, variable or commodity gas costs
7 are anticipated to increase by \$17,464,384 since the last GSR filing. The
8 variable costs contained in this filing are increasing primarily due to the
9 projected cost of flowing commodity gas for the upcoming year increasing
10 from the flowing commodity gas costs included in the previous GSR filing
11 with rates effective on and after August 1, 2008.

12 As shown on this schedule, fixed costs are anticipated to increase by
13 \$2,569,538 since August 1, 2008, the date of the last change in the
14 Company's GSR. The increase in fixed gas costs is mainly attributable to
15 a combination of increased daily firm transportation entitlements on the
16 Transcontinental Gas Pipe Line Corporation ("Transco") and Eastern
17 Shore Natural Gas Company ("ESNG") pipeline. These increased
18 entitlements are discussed further in the direct testimony of Marie E.
19 Kozel.

20

21 Q. PLEASE DESCRIBE THE PROCESS THE COMPANY USED TO
22 DETERMINE ITS GSR LEVELS AND THE VARIOUS COMPONENTS OF

1 THE DELAWARE DIVISION'S GSR CALCULATIONS AS SHOWN ON
2 SCHEDULE A.1.

3 A. Schedule A.1 is a summary of the calculation of the three proposed GSR
4 levels. The calculations of the proposed GSR levels have been made in
5 accordance with the provisions set forth in the Delaware Division's GSR
6 tariff clause. The process to determine the GSR charges consists of three
7 major steps:

- 8 1. Develop the sales and associated gas supply requirements
9 forecast.
- 10 2. Forecast supplier rates and calculate annual purchased gas costs
11 associated with serving the Company's firm customers.
- 12 3. Derive the GSR charges utilizing the results of the first two steps
13 and the process below:

14 Step 3 is summarized on Schedule A.1. Initially, three gas cost rates must
15 be established to calculate the three separate GSR charges: a fixed rate,
16 a commodity rate and a system average rate. Based on total firm gas
17 costs recoverable through the gas cost recovery mechanism for the GSR
18 levels to be effective November 1, 2008, the three gas cost rates are
19 calculated as follows:

20	Fixed Rate - \$29.73 / Ccf	(Total fixed costs of \$14,140,066
21		divided by the firm peak day
22		capacity requirements of 475,691
23		Ccf)

1 Commodity Rate - \$1.150 / Ccf (Total firm commodity costs of
2 \$49,094,790 divided by firm sales
3 volumes of 42,690,022 Ccf for
4 the period November 2008
5 through October 2009)

6 System Average Rate - \$1.481 / Ccf (Divide total firm gas costs of
7 \$63,234,857 by the firm sales
8 volume of 42,690,022 Ccf)

9 From these three rates, different methodologies are applied in order to
10 calculate the Gas Sales Service Rates that more closely align the Gas
11 Sales Service Rates with actual gas costs identified for providing services
12 associated with different rate schedules or customer classes.

13

14 Q. PLEASE EXPLAIN THE THREE METHODOLOGIES UTILIZED TO
15 CALCULATE THREE SEPARATE GAS SALES SERVICE RATES USING
16 THE FIXED RATE, COMMODITY RATE AND SYSTEM AVERAGE RATE
17 AS PREVIOUSLY DESCRIBED.

18 A. Schedule A.1 also provides a summary of the development of the three
19 separate Gas Sales Service Rates by applying the tariff language
20 described in the Delaware Division's tariff on Sheet No. 42.2.

21 Rate Schedule HLFS

22 This GSR charge, applicable to any customer qualifying for High Load
23 Factor Service (HLFS) is calculated based on the combination of a

1 weighted average demand and commodity rate developed on an overall
2 fifty-four percent (54%) load factor for the customer class and the overall
3 system weighted average cost rate. The 54% load factor is included on
4 Schedule J. This means that the fixed gas cost rate of \$29.73 per Ccf,
5 as previously described, is divided by 197 days (54% of 365 days in a
6 year) to calculate a demand rate of \$0.151 per Ccf. This rate is then
7 added to the commodity rate, as previously described, of \$1.150 per Ccf
8 to calculate a volumetric rate of \$1.301 per Ccf. The arithmetic average of
9 this volumetric rate (\$1.301 per Ccf) and the system average rate (\$1.481
10 per Ccf) is \$1.391 per Ccf, which equals the GSR charge for HLFS
11 customers. Total costs associated with HLFS (\$12,753,873) are projected
12 by multiplying the GSR charge (\$1.391 per Ccf) by the projected sales
13 volumes for HLFS (9,168,852 Ccf).

14 Rate Schedules GLO and GLR

15 All customers served under these Gas Cooling and Gas Lighting rate
16 schedules will be subject to the same GSR charge. This rate is calculated
17 using weighted average demand and commodity rates through a single
18 gas cost rate per Ccf, based on a 100% load factor. The demand rate of
19 \$0.081 per Ccf ($\$29.73 / 365$) plus the commodity rate of \$1.150 per Ccf,
20 produces a GSR charge of \$1.231 per Ccf. Total costs associated with
21 Gas Lighting Services of \$1,920 is a result of multiplying the \$1.231 per
22 Ccf GSR charge by the annual sales volumes for these services of 1,560
23 Ccf.

1 Rate Schedules RS-1, RS-2, GS, MVS and LVS

2 These rate schedules are assigned the remaining firm purchased gas
3 costs after the firm purchased gas costs have been calculated for the
4 above mentioned rate schedules ($\$63,234,857 - \$12,753,873 - \$1,920 =$
5 $\$50,479,064$). Associated costs are divided by the remaining volume
6 ($42,690,022 - 9,168,852 - 1,560 = 33,519,610$) to develop a rate of
7 \$1.506 per Ccf, less the portion of any shared margins (\$0.040 per Ccf) as
8 shown on Schedule A.2. All customers served under rate schedules RS-
9 1, RS-2, GS, MVS and LVS will be charged \$1.466 per Ccf for service
10 rendered on and after November 1, 2008.

11

12 Q. AS INDICATED IN YOUR TESTIMONY, THE FIRST STEP IN
13 CALCULATING THE PROPOSED GSR CHARGES IS THE
14 DEVELOPMENT OF THE SALES AND ASSOCIATED GAS SUPPLY
15 REQUIREMENTS FORECAST. HOW ARE THE SALES AND SUPPLY
16 REQUIREMENTS FORECASTS DEVELOPED IN THIS PROCEEDING?

17 A. A forecast of purchased gas costs must start with a forecast of demand or
18 sales volumes for the Company's distribution system. Based on meeting
19 the sales forecast, the Company develops a forecast of the associated
20 purchases or supply requirements. For the purpose of this proceeding,
21 the sales forecast began with an analysis of the major variables that affect
22 sales volumes. These variables include such items as the number of
23 customers to be served, the rate schedule classification of those

1 customers (i.e. large volume, high load factor, etc.), temperature, and the
2 larger individual commercial and industrial customer sales volumes or
3 demands. Sales volumes are normalized based on a ten-year average of
4 degree days for the months of July 1998 through June 2008.
5

6 Q. HAS A SCHEDULE BEEN INCLUDED SETTING FORTH THE
7 ESTIMATED VOLUMES OF GAS TO BE BILLED TO CUSTOMERS
8 DURING THIS PERIOD?

9 A. Yes. Schedule C.1 shows Chesapeake's projected sales volumes by
10 customer class for the determination period of the twelve months ending
11 October 31, 2009.
12

13 Q. PLEASE DISCUSS FURTHER THE DEVELOPMENT OF THE SALES
14 FORECAST SHOWN ON SCHEDULE C.1

15 A. Forecasted sales were used for the entire twelve-month period of
16 November 2008 through October 2008. Forecasted sales were developed
17 based upon the actual sales volumes billed to each customer class during
18 each month for the prior year with adjustments to reflect average
19 temperature, customer growth and customers switching among rate
20 classes.
21

22 Q. HOW ARE THESE CSUTOMER ADJUSTMENTS RELFECTED IN THE
23 TWO RESIDENTIAL SERVICE CLASSES?

1 A. For RS-2 customers, the Company has projected an increase of
2 approximately 1,689 customers over the twelve-month period ending
3 October 31, 2008, with the majority of the increase representing growth in
4 new customers. The Company did not project a significant change to the
5 number of RS-1 customers.

6
7 Q. HOW ARE THESE CUSTOMER ADJUSTMENTS REFLECTED IN THE
8 FIRM COMMERCIAL AND INDUSTRIAL CLASSES?

9 A. With respect to the Commercial and Industrial customers, the Company
10 projects an overall increase of approximately 236 customers over the
11 previous twelve-month period. This also includes customers moving from
12 the previous interruptible sales customer class.

13
14 Q. PLEASE DISCUSS ANY OTHER FIRM CUSTOMER ADJUSTMENTS.

15 A. With respect to the number of Gas Lighting customers, no significant
16 changes are projected during this twelve-month period. The Company no
17 longer offers a gas cooling service.

18
19 Q. PLEASE EXPLAIN HOW THE PROJECTED SALES VOLUMES WERE
20 USED TO CALCULATE THE ASSOCIATED GAS SUPPLY
21 REQUIREMENTS REQUIRED BY THE DELAWARE DIVISION DURING
22 THE DETERMINATION PERIOD.

1 A. Using the projected sales volumes from Schedule C.1 as a starting point,
2 adjustments due to cycle billing, unaccounted for gas and company use
3 gas were derived in order to calculate the total gas supply requirements
4 for the period.

5

6 Q. PLEASE EXPLAIN THE CYCLE BILLING ADJUSTMENT AS SHOWN ON
7 SCHEDULE C.1.

8 A. All sales volume projections included in this GSR filing are associated with
9 a respective billing month while the Delaware Division's purchases are
10 recorded on a calendar month basis. Chesapeake includes a cycle billing
11 adjustment in its calculation of the GSR charges for the purpose of
12 accounting for the difference between a billing month and a calendar
13 month. The cycle billing adjustment is calculated by first dividing the
14 projected, normalized firm sales volumes for each month into a base load
15 and a heating load. The heating load is then multiplied by the difference
16 between the normal calendar month degree days and the normal billing
17 month degree days to calculate the cycle billing adjustment.

18

19 Q. WHAT IS THE LEVEL OF COMPANY USE GAS PROJECTED DURING
20 THE DETERMINATION PERIOD?

21 A. Company Use Gas is projected to be 1,291 Mcf for this determination
22 period. This projection is the same level of volume experienced by the
23 Company during the actual twelve months ended July 31, 2008.

1 Q. PLEASE EXPLAIN HOW YOU CALCULATED THE PROJECTED
2 UNACCOUNTED FOR GAS AS SET FORTH IN SCHEDULE C.1.

3 A. An unaccounted for gas volume of 146,848 Mcf has been projected for the
4 twelve months ending October 31, 2009. Unaccounted for gas is
5 calculated by multiplying the respective sales volumes for each month by
6 3.47% and subtracting the estimated Company Use for the month. The
7 3.47% utilized in this GSR calculation includes volumes attributed to
8 metering pressure differential and is based on the most recent actual five-
9 year history of unaccounted for gas volumes. The use of a five year
10 history of unaccounted for gas volumes was approved by the Public
11 Service Commission by Order No. 4189 in PSC Docket No. 95-206.

12
13 Q. PLEASE EXPLAIN HOW YOU CALCULATED THE PROJECTED COST
14 OF FIRM SALES FOR THE TWELVE-MONTH PERIOD ENDING
15 OCTOBER 31, 2009.

16 A. The projected cost of firm sales is detailed on a monthly basis throughout
17 the seven pages of Schedule C.2. In calculating the proposed cost of gas
18 for the period November 1, 2008 through October 31, 2009, the total
19 projected supply requirements were allocated between the different
20 categories of gas (commodity and storage) available to meet the projected
21 demand. Pages 1 and 2 of Schedule C.2 primarily calculate the fixed
22 costs of firm transportation on Columbia Gas Transmission ("Columbia"),
23 Columbia Gulf Transmission ("Columbia Gulf"), Transco, and ESNG. A

1 summary of storage demand and capacity charges is also included on
2 these two pages. Pages 3, 4 and 5 calculate the gas commodity costs
3 associated with firm transportation service. As summarized on Page 4 of
4 Schedule C.2, the projected cost of storage gas commodity for
5 withdrawals during this period has been calculated using the actual
6 purchases and costs for the months of April 2008 through July 2008 and
7 projected purchases and costs for August 2008 through October 2008.
8 The twelve-month period ending March 2009 is used for the calculation of
9 the storage gas demand cost to properly reflect the amounts to be
10 expensed during the determination year. The rates used in the commodity
11 gas purchase projections for flowing commodity gas for November 2008
12 through October 2009 are based on natural gas commodity futures market
13 prices during the last week August 2008.

14
15 Q. HAS THE COMPANY INCLUDED ANY SUPPLIER REFUNDS IN THIS
16 ANNUAL GAS SALES SERVICE RATE FILING?

17 A. Yes. The Company has included one supplier refund in the GSR
18 calculation for this determination period. The refund, in the amount of
19 \$73,537, represents the Delaware Division's estimated portion of ESNG's
20 interruptible margin sharing mechanism provision approved by the Federal
21 Energy Regulatory Commission. The projected supplier refund is included
22 in the Company's total firm gas cost calculation on Schedule B.

1 Q. PLEASE EXPLAIN THE CHANGE IN THE PROJECTED FIRM COST OF
2 GAS FOR THE TWELVE MONTHS ENDING OCTOBER 31, 2009 AS
3 SHOWN ON SCHEDULE B COMPARED TO NINE MONTHS OF
4 ACTUAL COSTS AND THREE MONTHS OF PROJECTED COSTS FOR
5 THE TWELVE-MONTH PERIOD ENDING OCTOBER 31, 2008.

6 A. Schedule F compares the projected firm cost of gas for the twelve months
7 ending October 31, 2009 utilized in this proceeding to the nine months of
8 actual gas costs and three months of projected gas costs for the twelve-
9 month period ending October 31, 2008. In addition, for informational
10 purposes, the actual firm cost of gas for the three prior determination
11 periods ended October 2007, 2006, 2005 are shown. Chesapeake
12 anticipates an increase in firm gas cost per Mcf from \$13.2702 per Mcf to
13 \$14.8060 per Mcf or a \$1.5358 per Mcf increase for the twelve months
14 ending October 31, 2009. As indicated on Schedule F, the \$1.5358 per
15 Mcf increase is mainly attributable to a projected increase in variable gas
16 costs per Mcf based on increased flowing gas commodity projections for
17 the determination period.

18

19 Q. PLEASE EXPLAIN SCHEDULES D.1 AND D.2 IN THIS GSR FILING.

20 A. Schedule D.1 sets forth the calculation of the purchased gas over/under
21 collection by month for the twelve-month period ending October 31, 2008.
22 The projected under collection balance at October 31, 2008 that is carried
23 forward into this annual filing is \$1,433,119.

1 Schedule D.2 reflects the shared margins over/under refund for the
2 twelve-month determination period ending October 31, 2008. Based on
3 this twelve-month determination period, the Company's under refunded
4 shared margins are \$1,165,505. This amount is also included in the
5 shared margin calculation on Schedule A.2.
6

7 Q. PURSUANT TO THE PROVISIONS OF THE TARIFF CONCERNING
8 THE UNACCOUNTED FOR GAS INCENTIVE MECHANISM APPROVED
9 BY ORDER NO. 3648, THE COMPANY AS PART OF ITS ANNUAL GSR
10 FILING IS REQUIRED TO PROVIDE THE COMMISSION STAFF WITH
11 ACTUAL UNACCOUNTED FOR GAS VOLUMES FOR THE PRECEDING
12 TWELVE MONTH PERIOD ENDED JULY 31. HAS THE COMPANY
13 INCLUDED A SCHEDULE SHOWING THE REQUIRED INFORMATION?

14 A. Yes. Schedule G represents the actual unaccounted for gas volumes for
15 the twelve months ended July 31, 2008.
16

17 Q. WHAT WERE THE UNACCOUNTED FOR GAS TARGET PERCENTAGE
18 AND DEAD BAND PERCENTAGES APPROVED FOR THE
19 UNACCOUNTED FOR GAS INCENTIVE MECHANISM IN PSC DOCKET
20 NO. 92-87F?

21 A. The Unaccounted For Gas Target approved was 3.20% of total gas
22 sendout or total gas requirements. The Dead Band approved was +/-
23 0.5% points around the 3.20% target level. Unaccounted For Gas

1 Volumes that are within 2.70% to 3.70% of total gas sendout are
2 considered to be within this band and meeting the objectives of this
3 mechanism.

4

5 Q. WHAT WAS THE ACTUAL LEVEL OF UNACCOUNTED FOR GAS
6 VOLUMES FOR THE TWELVE MONTHS ENDED JULY 31, 2008
7 COMPARED TO THE INCENTIVE MECHANISM TARGETS?

8 A. The actual unaccounted for gas percentage, as established by the
9 approved guidelines in PSC Docket No. 92-87F, for the twelve months
10 ended July 31, 2008, was 2.22% of total gas requirements. This
11 percentage is under the targeted percentage of 3.20% and is also under
12 the dead band range of 2.70% to 3.70%.

13

14 Q. WHAT EFFECT WILL THIS PROPOSED INCREASE IN THE GSR HAVE
15 UPON THE AVERAGE RESIDENTIAL HEATING CUSTOMER?

16 A. As compared to the rates that were in effect August 1, 2008 (including the
17 changes resulting from the Company's base rate proceeding), an average
18 RS-2 customer using 700 Ccf per year will experience an annual increase
19 of approximately 10% or \$11 per month. During the winter heating
20 season, a typical RS-2 customer on Chesapeake's system using 110 Ccf
21 per month will experience an increase of approximately 10% or \$19 per
22 winter month. A RS-2 customer using 120 Ccf per month will experience
23 an increase of approximately 11% or \$21 per winter month. Additionally,

1 comparing the rates that were in effect November 1, 2007 (including the
2 changes resulting from the Company's base rate proceeding), an average
3 RS-2 customer using 700 Ccf per year will experience an annual increase
4 of 17% or \$17 per month. During the winter heating season, a typical
5 customer on Chesapeake's system using 110 Ccf per month will
6 experience an increase of approximately 17% or \$30 per winter month.
7 An RS-2 customer using 120 Ccf per month will experience an increase of
8 approximately 18% or \$33 per winter month.

9

10 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

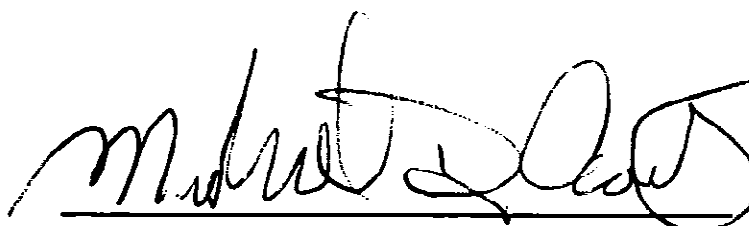
11 A. Yes, it does.

DATED: SEPTEMBER 2, 2008


STATE OF DELAWARE)
)
COUNTY OF KENT)

AFFIDAVIT OF MICHAEL D. CASSEL

MICHAEL D. CASSEL, being first duly sworn according to law, on oath deposes and says that he is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of Michael D. Cassel;" that, if asked the questions which appear in the text of the direct testimony, he would give the answers that are therein set forth; and that he adopts this testimony as his sworn direct testimony in these proceedings.


Michael D. Cassel

Then personally appeared this 2nd day of September 2008 the above-named Michael D. Cassel and acknowledged the foregoing Testimony to be her free act and deed.
Before me,


Cathy L. Harrigan
Notary Public
My Commission Expires: 05-25-11
NOTARY PUBLIC
State of Delaware